



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/044,171

10/22/2001

Elizabeth Cates

5235

1594

7590

04/26/2006

Milliken & Company
P.O. Box 1927
Spartanburg, SC 29304

EXAMINER

SHEWAREGED, BETELHEM

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/044,171	Applicant(s) CATES ET AL.	
	Examiner Betelhem Shewareged	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-28 is/are pending in the application.
- 4a) Of the above claim(s) 4-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response filed on 02/15/2006 has been fully considered. The 35 USC 102 rejection has been withdrawn in view of Applicant's amendment.
2. Claims 1 and 25-28 are amended, claim 2 is cancelled, and thus claims 1 and 3-28 are pending. (NOTE: Claims 4-22 are withdrawn from consideration as non-elected invention).

Claim Objections

3. Claim 3 is objected to because of the following informalities: The claim depends upon cancelled claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mishima (US 6,183,851 B1) in view of Kawasaki et al. (US 6,338,891 B1).

Mishima discloses an ink jet image recording medium comprises a support and a coating layer provided on the support (abstract). The coating layer comprises a polysaccharide binder (equivalent to the claimed sorbant) (col. 9, line 12), a metal salt

Art Unit: 1774

(equivalent to the claimed cationic material) (col. 13, line 32), and silicone oil (equivalent to the claimed repellant) (col. 16, line 7). The amount of the polysaccharide resin overlaps with the claimed range (col. 10, line 9). The support can be cloth (col. 17, line 12). Mishima does not teach the use of fluorocarbon resin in place of the silicone oil.

Kawasaki teaches an ink jet recording sheet comprising a support and an ink receiving layer on the support (abstract). The ink receiving layer comprises repellents such as fluorocarbon resin, silicone resin or alkyl ketene dimmer in an amount of 0.05-10% by weight (col. 6, lines 42-57).

Mishima and Kawasaki are analogous art because they are from the same field of endeavor that is the ink jet recording art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use of fluorocarbon resin instead of the silicone oil since the examiner takes Official Notice of the equivalence of fluorocarbon resin and silicone oil for their use in the ink jet recording art and selection of any of these known equivalents to make the ink receiving layer would be within the level of ordinary skill in the art.

Response to Arguments

6. Applicant's argument is based on that silicone oil of Mishima is used as plasticizer, lubricant or anticurling agent, however, the fluorocarbon of Kawasaki is used as water repellent and sizing agent; therefore, the silicone oil and the fluorocarbon are not equivalent in their use. Applicant further argues that Kawasaki teaches the use of silicone resin (not silicone oil) as the water repellent, and that silicone resin and silicone

Art Unit: 1774

oil are not equivalent chemicals. These arguments are not persuasive because a silicone oil is one class of silicone resin. Furthermore, the general use of silicone oil is not limited to a plasticizer, lubricant or anticurling agent. It can also be used as a water repellent. See the evidence for both in paragraphs [0053] and [0054] of Torikoshi (US 2002/0182520 A1).

In addition, the alkaline earth metal salts of Mishima are used as matting agents not as cationic materials. This argument is based on intended use, and is not persuasive because the recitation with respect to the manner in which the claimed metal salt (metal salt of Group II) is intended to be employed does not differentiate the claimed metal salt from the prior art metal salt (alkaline earth metal salts). *Ex parte Masham*, 2 USPQ2d 1647 (1987). For the above reasons, claims 1, 3 and 23-28 stand rejected.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1774

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B.S.
April 20, 2006.


BETELHEM SHEWAREGED
PRIMARY EXAMINER